

Work Order ID 164117

Thursday, July 13, 2017 12:44:48 PM

164117

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Item ID: D3212-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Replacement Interior Window For -015 & -025
 Start Date: 7/13/2017 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 7/20/2017 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: ^{24.1} Process Plan: ^{DAS} Date: JUL 13 2017 Tooling: Date: Run Start ***NR1***
²¹ QC: ^{2.00} Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3212	C								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.18							
FLOW CNC Waterjet	1-Cut blankas per Dwg D3212 Dwg Rev: <u>C</u> Prog Rev: <u>C</u>								
	2-Deburr if necessary								
110	HAAS CNC VERTICAL MACHINING #1	0.75							
110									
HAAS 1	Memo	0.60							
HAAS CNC vertical machine #1	Machine as per Folio FA349 and Dwg D3212								
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120									
QC	Memo	0.04							
Quality Control									

(4) 17/07/16

10x 2x 17/07/16 17/08/15

T.O.

10x 2x 17/08/15

DQA:

Date:

2017-09-21

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed

Date: SEP - 5 2017

Work Order update only ☐

Work Order: <u>164117</u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3212-1</u>		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>17-6600</u>		Scrap ☒		Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐	
Date: <u>2017/08/16</u>		Step #: <u>110</u>		QTY Effective: <u>2</u>		MRB (QSI042) Approval	
Description Work Order Deviation				Disposition		DAS 9 9-89 <u>17-08-16</u>	
Parts Damaged after Machining! RC → set-up was not good according to Folio!!				scrap and replace!! Batch #: M135984		Completed By <u>Mexim Math</u> <u>17-08-16</u>	
						Lead hand / Supervisor Approval Verification <u>B.A</u> <u>17-08-17</u>	
						QC / QA Coordinator Approval DAS 9 9-89 <u>17-08-16</u>	
Root Cause		FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☒	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☒	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☒	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐						
Misidentified ☐	Past Due ☐	OTHER: ☐					

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.08				10	0		DAS 44 9-89 17-08-17
140 *140* Small Fab Small Fab	Small Fab Memo 1-Deburr if necessary 2-Install label as per Dwg D32123- polish abrasion scratches if necessary.. 4-Wrap in plastic wrap after inspection	0.00 0.39				10x			DAS 36 9-89 17-08-30
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.08				10			DAS 38 9-89 AUG 31 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <i>SL437</i>	0.00							
160									
Packaging	Memo	0.04							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.40							
Quality Control									

10
DAS
6
9-89
SEP 01 2017

DAS
21
9-89
SEP 01 2017

DAS
21
9-89
SEP 01 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Work Order ID: 164117

164117

Parent Item: D3212-1

D3212-1

Parent Item Name: Replacement Interior Window For -015 & -025

Start Date: 7/13/2017

Required Date: 7/20/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: A New Issue 05-11-09 JLM
IPP Rev: B Water jet/ ecn798 06-05-08 EC
IPP rev.C back on haas 07.04.09 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2728-1		Manufactured	Yes			100	Each	-4.0000	1	4			DAS 36 9-89
D2728-1									**			17/08/30	
Dart Logo Label Small													
MACRLICS.125		Purchased	No			140	sf	136.6500	0.9745	4.103158			
MACRLICS 125									**			02/17/07/16	
1/8" Polycast II Sheet													

Location

Loc Qty

Loc Code

MAT019

86.65

m131524

5.45

m134641

3.5

m135555

13.7

m137519

64

RM

50

m135984

50

2.2

2.2

8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER :									

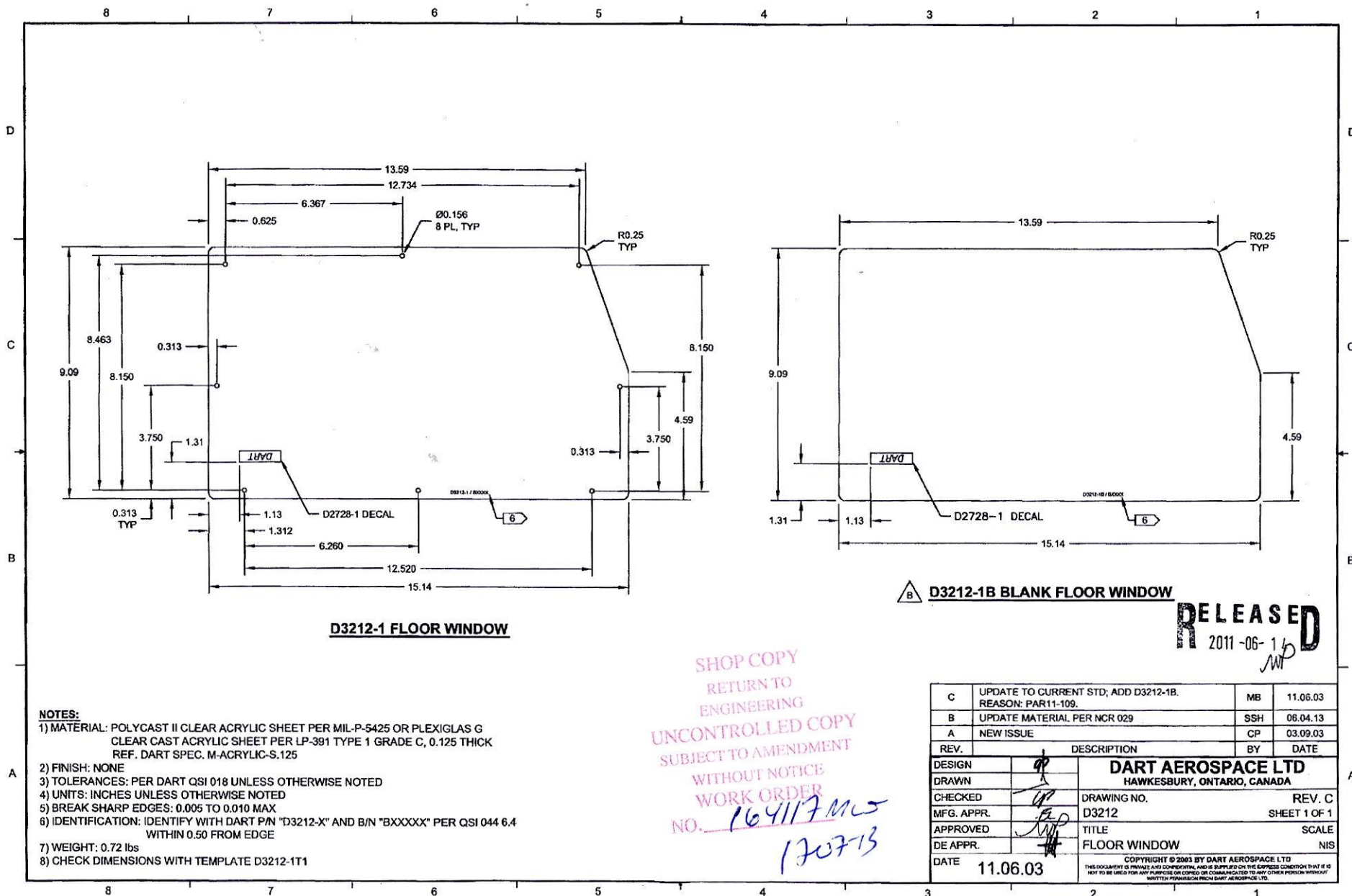
DART AEROSPACE LTD		Work Order: 164117
Description: Floor Window		Part Number: D3212-1
Inspection Dwg: D3212	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.734	+/-0.005	12.731	✓		high gage	
6.367	+/-0.005	6.367	✓		high gage	
0.625	+/-0.005	0.6235	✓		vern MLOK	
Ø0.156	+0.005/-0.001	0.1572	✓		pin gage	
R0.25	+/-0.030	0.25	✓			
8.150	+/-0.005	8.155	✓		high gage	
3.750	+/-0.005	3.751	✓		high gage	
0.313	+/-0.010	0.312	✓		high gage	
15.14	+/-0.030	15.150	✓		high gage	
12.520	+/-0.005	12.515	✓		high gage	
6.260	+/-0.005	6.257	✓		high gage	
1.312	+/-0.005	1.316	✓		vern MLOK	
0.313	+/-0.010	0.315	✓		high gage	
3.750	+/-0.005	3.751	✓		high gage	
8.150	+/-0.005	8.155	✓		high gage	
8.462	+/-0.005	8.462	✓		high gage	
9.09	+/-0.030	9.0955			high gage	

Measured by: <i>lll</i>	Audited by: DAS 44 9-89	Preliminary Approval:
Date: 08/15	Date: 17-08-17	Date:

Rev	Date	Change	Revised by	Approved
A	03.12.15	New Issue P/O D350-567-015/-025/-031	KJ/RF	
B	07.05.28	Dimensions updated per Dwg Rev. B	KJ/JLM	
C	12.02.01	Dwg Rev updated	KJ	<i>[Signature]</i>



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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 164117 ML5
170713

RELEASED
2011-06-16
JW